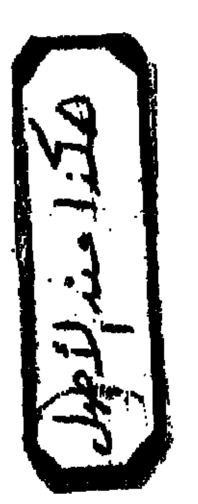


The German Tribune

Hamburg, 1 April 1969
Eighth Year - No. 364 - By Air

A WEEKLY REVIEW OF THE GERMAN PRESS

C 20725 C

Ussuri conflict rocks the Moscow-Peking boat

Frankfurter Allgemeine
ZEITUNG FÜR DEUTSCHLAND

Senator Edward Kennedy has appealed to the American government no longer to ignore Red China politically. Peking, he feels, must be included in Washington's scheme of international ties.

This is not the first time similar viewpoints have been voiced by important American politicians, but since the shooting began on the Russo-Chinese frontier, a frontier that is, in any case, only 100 years old, the idea that ties with China are a "must" has gained in significance and power to convince, and not only in the United States.

The veil of common ideology that made Russia and China seem like a pair of heavenly twins in foreign policy has now been torn asunder. This friendship was only a short episode, culminating at the beginning of the Khrushchev era in 1957 and coming to an end shortly afterwards.

It was encouraged by the willingness with which the rest of the world accepted the impression that two so important empires appeared to put their common Marxist-Leninist ideology first.

Differences of opinion, which existed even at that stage, were regarded as differing interpretations of dogma, as if it were all only a matter of correctly interpreting the creed, which so appeared in a shining light.

Even on theoretical terrain there is room enough for bitter feuds but Moscow and Peking are both long past the feuding stage. Each reckons the other is pursuing policies that no longer have the slightest thing in common with Communist teachings and its interpretations. Tsarism, colonialism and nationalism are the current epithets.

Through the torn and tattered curtain of ideology the firm contours of old national conflicts of interest have made their appearance: Moscow's *Drang nach Osten*, a colonial drive that in comparison with Europe's seizure of colonies in Africa and South-East Asia has been paid little attention, and the areas handed over to Russia by the crumbling Chinese empire in the mid-nineteenth century under the flimsy pretext that the take-over was necessary to protect China from British expansionary pressure.

Chinese resentment at the advantage taken of a great people is directed against the Russians every bit as much as against other Whites. On the other hand, Moscow's legal title to the existing frontiers is impeccable.

It does look as though in the era of division into two spheres of influence that followed on from the Second World War the importance or, perhaps, the durability of communist ideology was overestimated. Looking back at the Russo-Chinese rift communist ideology has certainly been discredited as a connecting link.

When the common ideology has not proved to be a lasting link what hopes can there be that foreign policies will remain under the influence?

The Chinese version has in any case changed to a more general revolutionary tune and in competition with the Moscow brand has not been without success, though despite the appeal of the Chinese line for dissatisfied people everywhere it lacks a foreign policy efficacy that the Soviet line had in its heyday.

The claim to be the guardian of the truth and holder of the key to the future is thus no longer the trump card Moscow has always made it out to be — and not without a certain amount of success. A factor that has long played an important role in world affairs is paling in significance.

Consequently the involvement on the Amur and the Ussuri represents for the Soviet Union not only a military strain and, for military reasons, a strain on foreign policy. An inner nerve, so to speak, has also been jarred in sympathy, albeit one that has been in line for trouble for some time.

The same is true of Moscow's position in Europe, beginning with what was seen as an inevitable necessity to counter tendencies towards independence in Czechoslovakia with brute force and ending, as yet, with the latest performance of the kind, the two-hour Budapest conference of the Warsaw Pact countries.

In this, the inner circle of Soviet foreign policy, the Kremlin is more badly in need than ever of a demonstration of solidarity, yet it has to make do with the unbroken (and, let it be added, genuinely firm) facade of unity.

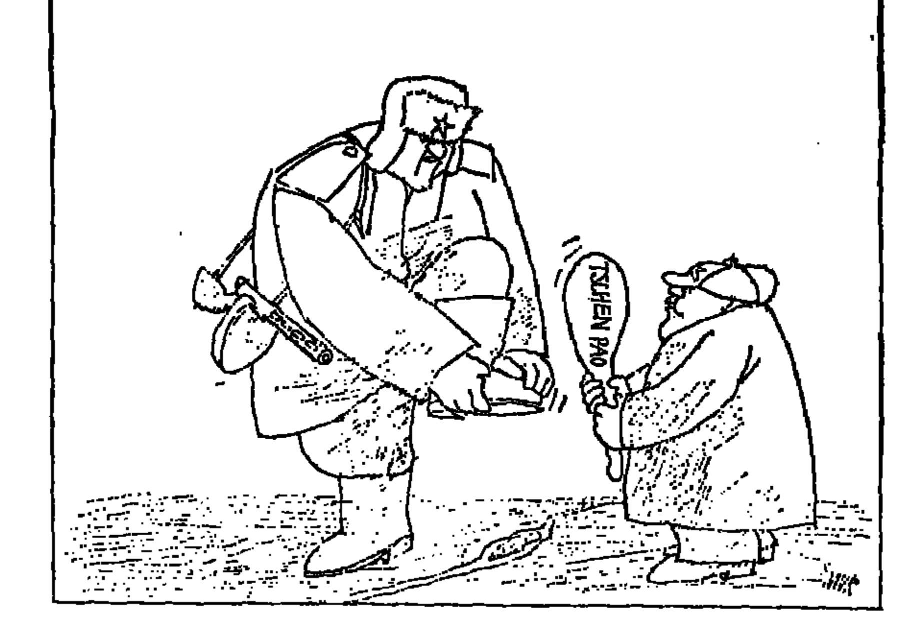
There are no sudden changes in international politics, but sometimes events that claim attention by virtue of their spectacular character turn a spotlight on developments that in themselves are slowly taking place.

There are a number of signs that apart from the development in military techniques that is the main factor the foreign policy constellation of the seventies will differ fundamentally from the present state of affairs as a direct consequence of the paling in significance of communist ideology as a unifying factor.

President Nixon, who will be called on by politicians other than Senator Kennedy to reappraise America's policy towards China, is aiming at agreement between East and West. There will be more ways open to him than to his predecessor, who had set himself a similar goal.

Nikolas Benckiser

(Frankfurter Allgemeine Zeitung für Deutschland, 22 March 1969)



Damn, damn, damn!

(Cartoon: Murschetz/Süddeutsche Zeitung)

IN THIS ISSUE

Geneva disarmament conference gets off to a good start



This year the Geneva disarmament conference got off to an unusually good start when the Soviet delegate during the opening session submitted a draft treaty banning weapons of mass destruction and other military installations on the seabed.

Kremlin diplomats have evidently overtrumped the Americans on this occasion by grasping the initiative in a sector by which the United States sets great store. Communist politicians will not now have any great difficulty in attributing to themselves the success of the next East-West agreement.

A fine piece of work, there can be no denying. Only six months ago the Soviet Union, ably assisted by its allies, was insisting on demagogic discussion of a ban on the use of nuclear weapons.

In the July 1968 Soviet disarmament memorandum a treaty on demilitarisation of the seabed was the ninth and final item.

At the end of the last round of disarmament talks at Geneva the two great powers could not reach agreement on priorities for the forthcoming agenda. The United States did not want to give the go-ahead for a ban on the use of nuclear weapons and the Soviet Union refused to give priority to talks on the seabed.

Moscow has now taken a surprisingly realistic stand and is aiming straight at a new agreement with the United States without at the same time disregarding the main chance.

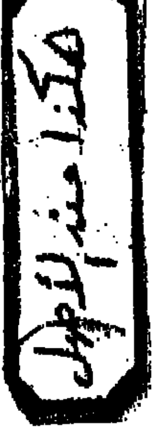
Many delegations, particularly those from non-aligned countries, are nonetheless not hiding their disappointment that the great powers are once again pushing into the background the important issue of a ban on all nuclear tests.

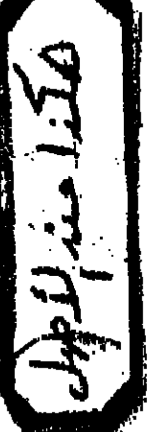
Every year the UN General Assembly stresses in its resolutions the urgency of reaching agreement on ending nuclear tests underground. Every year the two superpowers then perform the same balancing act at Geneva, talking in terms of how urgent the need is but in practice relegating it to a lesser rung of the ladder.

The key to real progress in disarmament lies in the proposed bilateral negotiations between the United States and the Soviet Union on the entire complex of strategic weapons.

As long as there is no real prospect of agreement on this the military men on both sides will not be prepared to forgo further underground nuclear tests.

(Frankfurter Rundschau, 22 March 1969)





FOREIGN AFFAIRS

Warsaw Pact delegations meet in Budapest

NO DISCUSSION OF RUSSIA-CHINA DISAGREEMENTS

Non-Communists were not allowed to attend the barely two-hour Budapest full session of Warsaw Pact party leaders, heads of government, Defence and Foreign Ministers but it takes little imagination to conclude that there cannot have been much of a discussion, only confirmation of decisions reached beforehand.

The most urgent of the three foreign policy issues that at present occupy leading Eastern Bloc power USSR, the conflict between the Kremlin and Peking, was conspicuous by its absence from the resolutions approved.

Opinions differ as to whether this was due to the Rumanians, who are still on good terms with China, or to the Soviet leaders themselves choosing not to mobilise the Warsaw Pact in defence of their East Asian front in order to prevent the China problem making attendance at the projected international communist summit out of the question for many, mainly Asian parties.

Surmises that the Soviet marshals at Budapest were there to demand troops from their European allies for the Far East reveal a failure to allow for the Kremlin's self-esteem. The men in power in Moscow are able and willing to deal with their Chinese protagonists themselves.

The wording of a special resolution makes it clear that the tricky topic of a reorganisation of the leadership of the Warsaw Pact was dealt with by the assembled Ministers of Defence. It is not clear to what extent serious attention was paid to the wishes of the Rumanians, which last year were publicly supported by military men from other Warsaw Pact countries.

Commission to be convened

Rotation of supreme command, which at some stage would automatically lead to the replacement of the Soviet C-in-C and Chief of Staff by a Rumanian, Hungarian or Czech, cannot at the moment be acceptable to either Moscow, East Berlin, Warsaw or Sofia. As the proposal was neither accepted nor rejected it was decided to refer it to a commission.

A positive outcome of the Budapest conference was the unanimously-approved resolution calling for a European security conference. A similar call was made by the Eastern Bloc countries at Bucharest three years ago and in the meantime every Western visitor to Moscow has approved of the idea in principle, and from Bonn this country's Foreign Minister has welcomed the proposal in principle too.

Süddeutsche Zeitung
MÜNCHNER NEUESTE NACHRICHTEN

Yet the idea has only now become a serious starter, with the omission from the Budapest resolution of past polemics even against this country and with the inviting and even urgently exhortative tone of the joint resolution. The seriousness of Moscow's intentions is demonstrated by the fact that feelers have already been put out to find a suitable neutral venue. The Finnish government has stated publicly that it would be ready to welcome a conference of this kind in Helsinki.

The Eastern Bloc's intentions are reiterated in the Budapest resolution. The security conference is to guarantee the inviolability of existing frontiers in Europe, including not only the Oder-Neisse line between Germany and Poland but also the frontier and the Federal Republic of Germany.

Recognition of the existence of two German states, renunciation by this country of the claim to represent the whole German people and renunciation by Bonn of the power of disposal over nuclear weapons of any kind are not stated to be a sine qua non for the holding of the conference but as the alleged chief prerequisite for a guarantee of European security clearly form part of the declared aims.

Moscow's old argument that West Berlin enjoys special status and does not belong to West Germany is also to be confirmed by the conference.

The inviting tone of the Budapest resolution must not lead to disregard of the aims it is hoped to fulfil at the proposed conference. Some of these demands can be discussed at the conference, should it come about. None of this country's allies in the West has, for instance, so far agreed with the Eastern Bloc's view, reiterated at Budapest, of the future status of West Berlin. Bonn's European allies would each have their say at the conference.

Yet merely in extending invitations the Eastern Bloc hopes to achieve some results prior to the conference, chiefly the recognition of two coexistent German states. Were it to be agreed in preliminary negotiations that Finland is to be responsible for extending invitations Bonn and East Berlin would both be invited to attend, since the Finnish government accords equal recognition to each.

No European government, the resolution notes, has opposed the idea of an all-European conference. This is true and will have to be borne in mind when, sooner or later, Bonn has to restate its attitude.

Opponents of the conference, it was said at Budapest, want to stir up tension, promote the arms race and, in the final analysis, change the map of Europe. For once Bonn was not expressly mentioned in this context.

Bonn, of course, also approves of the conference in principle. It will have to be allowed a say in the form and venue of a conference it proposes to attend.

Immanuel Birnbaum
(Süddeutsche Zeitung, 19 March 1969)

America and Russia both eager to continue agreements on arms limitations

The messages sent to Geneva by President Nixon and Premier Kosygin on the resumption of the seventeen-nation disarmament conference bear witness to the efforts of both sides to continue with agreements between the two superpowers on arms limitations in certain sectors.

Like its predecessor the Nixon administration, which is represented at Geneva for the first time, would like to progress towards the main issues of nuclear disarmament by way of marginal agreements which are easier to reach.

In his message Premier Kosygin stated as Moscow's express aims a limitation and finally reduction in stocks of nuclear arms.

The Soviet draft of a treaty banning military activity on the seabed is, on the other hand, as is a ban on nuclear weapons in space, a more marginal issue on which, despite a number of objections, agreement should be easier to reach than on a general arms ban.

As ever, the well-meaning and pathetic peace declarations by statesmen everywhere founder on the security interests of the countries they represent. Mr Nixon's decision to erect a limited anti-missile shield was as necessary a development as was the build-up of a missile shield around Moscow in the face of Chinese threats.

Even so, as UN Secretary-General U Thant uneasily commented, this leaves the door wide open for an arms race of new and gigantic proportions, a development that can hardly be reconciled with the nonproliferation treaty, which obliges the nuclear powers to undertake steps towards disarmament.

This state of affairs but adds fuel to the fire of suspicions on the part of threshould powers, highly-developed industrial countries with nuclear potential, that the treaty is less a genuine restriction on armaments than an attempt by a directorate of superpowers to avoid having to disarm themselves.

The non-proliferation treaty and its political aspects are unquestionably the major topic in the background at the Geneva talks. Apparently the Japanese government is considering ratifying the treaty with the proviso that Japan will consider itself no longer bound by the treaty in five years' time if in the meantime the nuclear powers have not met their obligation to undertake disarmament measures.

A time factor of this kind ought to do disarmament a far better service than the vain attempt to sulk in a corner on a matter affecting the future of mankind.

(DER TAGESSPIEGEL, 19 March 1969)

Increased favour towards signing NPT

Gradually but inexorably the still controversial non-proliferation treaty is growing ripe for signature. The Social Democrats are in favour, the opposition Free Democrats are in favour and so are a majority of the Christian Democrats.

On 19 March Foreign Minister Brandt told the Bundestag that he favours signing before the summer recess. The arguments why it would be better to do so are well-known. A new element was nevertheless brought into the debate by Willy Brandt's comment that a number of issues cannot be sorted out until the treaty comes into force.

Opponents of signature are likely to oppose this view too and express their mistrust of overreadiness to place trust in others. Yet since there can be no counting on further Soviet goodwill continued resistance to signature amounts to outright rejection of the treaty.

This is unlikely to gain majority support, particularly as the treaty contains an exit clause should this country be put to disadvantage in the peaceful exploitation of atomic energy. Security remains guaranteed within the Nato framework too.

(Frankfurter Neue Presse, 20 March 1969)

The German Tribune

PUBLISHER:
Friedrich Reinecke

EDITOR-IN-CHIEF:
Eberhard Wagner

ASSISTANT EDITOR-IN-CHIEF:
Otto Heinz

ENGLISH LANGUAGE SUB-EDITOR:
Geoffrey Penny

GENERAL MANAGER:
Heinz Reinecke

Published by
Reinecke Verlag GmbH
23, Schoene Aussicht, Hamburg 22
Tel.: 2-20-12-56 - Telex: 02-14733

Advertising-rates list No. 5

Printed by
Krögers Buch- und Verlagsdruckerei
Hamburg-Blankenese

All articles which THE GERMAN TRIBUNE reprints are published in cooperation with the editorial staffs of leading newspapers of the Federal Republic of Germany. They are complete translations of the original text, in no way abridged or editorially redrafted

In all correspondence please quote your subscription number, which appears on the wrapper to the right of your address.

Mao's main weapon against the Russians is his millions!

China has hurled at Russia Mao's famous dictum that nuclear arms are a paper tiger, intending by so doing to underline the superiority of its strategic concept in the political set-to between Moscow and Peking.

Mao's formula is not the expression of megalomania. It pits against the nuclear strategy of the Red Army and its up-to-date technology the strategy of prolonged revolutionary people's war of the kind that his People's Liberation Army can fight.

Mao's weapon is the people. The People's Army fights together with the people. The people are a flexible weapon. They can be manipulated and their force is inexhaustible. The Bomb, on the other hand, is, according to Mao, rigid. It must either be used to totally exterminate the opponent or it cannot be used at all.

The weakness of the Bomb is that it is made out to be a logical security factor but can only be used illogically. The Soviet Bomb is supposed to protect Moscow by representing a threat to the Chinese masses. According to Mao this is a contradiction. According to his strategic ideas the people are invincible. So nuclear arms are a paper tiger.

(Frankfurter Allgemeine Zeitung für Deutschland, 19 March 1969)

HOME AFFAIRS

Bundeswehr morale in a bad way!

YOUNG RECRUITS ARE TOO FED UP

The latest report by the Bundestag member with special responsibility for the Bundeswehr was intended to sound the alarm. Without glossing over the facts the internal situation of the armed forces is laid bare. Numerous young soldiers are fed up with the Bundeswehr and this has a negative effect on morale.

But the Bundeswehr is not only facing a mental crisis. Reform of its organisation and structure is also needed. Institutions like an army cannot of course be completely transformed overnight. It is not by chance that conservatism plays a part in any military organisation.

Modern armies are complex. But an essential degree of conservatism, which recommends itself simply for financial reasons, should not be allowed to develop into inflexibility. The Bundeswehr has been in existence for over a decade. During this time strategic concepts have undergone various changes. The Bundeswehr must adapt to this reality.

True, the political task remains the same: this country's present social order is to be maintained. This can only be achieved with a war instrument which can preserve peace. The quality of the deterrent power is intended to prevent war. Any war in this country, even if it ended with a victory in the traditional sense, would certainly destroy what we want to preserve.

But the strategy by means of which crises are to be overcome has changed. At least in theory, the armed forces should be capable of providing conventional resistance for a while; this is the concept of "flexible response". But this is asking too much of the Bundeswehr.

Western defence doubts

It has always been doubtful whether the Western divisions presented a convincing force, considering the relationship between the area which is to be defended and the available troops. This problem was of secondary importance so long as the nuclear deterrent theory — "all or nothing" — applied to Europe.

Flexible response clearly means that any military action by a possible enemy should be met by appropriate military action on this side. This means that the Bundeswehr also has a military responsibility. It can only fulfil its political responsibility if the military tasks can be credibly met.

Frankfurter Allgemeine
ZEITUNG FÜR DEUTSCHLAND

This country's divisions are to a large extent modelled on the mechanised army of the last war. In this respect they are like the American operational units. According to structure, the army divisions were combat divisions. And divisions, which like the American units correspond to the make-up of an expeditionary force, are also provided for attack.

But the flexible response strategy is a deterrent concept. Though admittedly strategic defence also takes into account the possibility of a changeable battle front. Like offensive strategy, it includes attacking deep into the enemy lines (as part of a counter-offensive).

In view of the Anglo-Saxon military leadership, to which this country's forces are subject, and of the political attitude of our strongest ally it is, however, improbable that a military counter-attack would spill over the zonal border.

But this means that the comprehensive motorised equipment of this country's combat forces is unnecessary. These troops could be supported by local installations. Relatively little scope for transportation is needed. But the Bundeswehr is equipped as if it were going to fight in Africa or far-off prairies.

Moreover, the problem of supplies restricts mobility. It is a burden during peacetime. Logistics occupies an incredible number of soldiers. In the event of a war, this problem would produce a leadership crisis.

It would be impossible to protect the army service corps and in the long run there would be insufficient troops of this type. If these essential soldiers were taken from combat troops, then this would weaken military strength which is the whole point of the operation.

The example of one corps illustrates the imbalance between combat and auxiliary troops. Roughly speaking, three divisions would have eight hundred tanks at their disposal. Five thousand men from tank regiments would form infantry support. Ideally, they would be accommodated in armoured transport vehicles.

In addition, the future "new automatic tank" will be an excellent weapon. If tank regiment men had to get out of the tanks, there would be 1,600 soldiers. But for these troops the corps and the three divisions have to provide almost 70,000 auxiliary forces.

It is obvious that in this case, which is intended to highlight the statistical relationship between combat and auxiliary troops, artillery, pioneers and air defence are relegated to the category of auxiliary troops.

But any impartial observer must be startled by the fact that the tank and infantry component of a corps is attached to an apparatus which requires almost twenty thousand vehicles. Only ten per cent of the Bundeswehr are combat troops; this is too few.

The Inspector of the Bundeswehr has declared war on this type of organisation. He is thinking in terms of concentrating the pure tank units with the corps. He wants to turn the overburdened Bundeswehr into a force which has more "straightforward" infantry and less mechanised potential. The watchword is "fighter brigades". This initiative can only be welcomed. Without combat troops the Bundeswehr has no political power.

Adelbert Weinstein
(Frankfurter Allgemeine Zeitung für Deutschland, 19 March 1969)

The ubiquitous new Justice Minister — Horst Ehmke

(Photo: dpa)

"Just drive anywhere; I'm needed everywhere." This is what the future Federal Minister of Justice, Professor Horst Ehmke (42), is supposed to have said to his chauffeur once when he was asked where he wanted to be taken from the Bonn government offices. Whether it is true or not, the anecdote contains a grain of truth.

Professor Ehmke, who not only shares the year of his birth with the author Günter Grass but also his birthplace, Danzig, and membership of the Social Democratic Party (SPD), is now a definite fixture on the Federal Republic political scene.

Even in 1944 when, having just taken his school-leaving examinations, he became a paratrooper he made his mark and was soon made a cadet officer. He was wounded and made a Russian prisoner-of-war in the Berlin area, but was soon released.

In 1946 he began to study law at Göttingen University; in 1950 he got to know something of the USA at Princeton University, and in 1952 he graduated from Göttingen University. His thesis was about "The limits of constitutional amendments".

Hinrich Wilhelm, who at the time was prime minister of Lower Saxony, helped Ehmke become an assistant to the Bundesrat legal committee. In 1960 Ehmke qualified as a lecturer at Bonn University; his inaugural dissertation dealt with American constitutional law. In 1961 he accepted a professorial chair at Freiburg University, thus becoming one of the youngest professors in the country. His inaugural lecture was entitled "Karl von Rotteck, the political professor."

Ehmke himself is a political professor par excellence. His students liked his unconventional appearance (for a German professor) and respected his profound knowledge. His lectures were always well attended.

In his party this tall wiry man with his hair brushed back off his face enjoys respect — even from the parliamentary party chairman Helmut Schmidt who is usually somewhat grudging — though some of his party colleagues mingle respect with scepticism towards this "young man" who has certainly not conformed to the usual party career. At the Nuremburg party conference this scepticism prevented Ehmke being elected to the SPD executive.

Ehmke is a passionate tennis-player, the father of three children and is not particularly bothered by personal criticism. Like his former boss Gustav Heinemann, his attitude is: "Don't make so much fuss."

In his new office he will try to accelerate the reforms proposed by Heinemann and the government. In his opinion, the stability of the Federal Republic can only be guaranteed by introducing reforms. Minister of Justice will probably not be Ehmke's last or highest office. He is indeed "needed everywhere".

(Hannoversche Presse, 20 March 1969)

Voting at 18?

Largely unnoticed by the public, the Hamburg government has just passed a law which sooner or later will affect and involve the representative bodies of the other Federal states and the Bundestag. The voting age has been lowered from 21 to 18 and eligibility for election now stands at 23 instead of 25.

Through this legislative initiative the city of Hamburg has met the demands of politically committed young people and given them the opportunity to influence policy and public opinion by participating in elections. It is certainly only a matter of time before this issue becomes ripe for decision in other Federal states and one can speculate as to whether the Bundestag will eventually have to make up its mind on this question.

In the discussions to date on the lowering of the voting age and election eligibility one superficial argument which has constantly been voiced is the "political immaturity" of 18-year-olds and the consequent danger of splintering and radicalisation of the party network.

Falsification and simplification go hand in hand and as far as political immaturity is concerned it is easy to make claims but difficult to produce evidence. In this respect one can presumably regard the question of lowering the voting age and election eligibility fairly calmly.

For there is little to indicate that today's 18-year-olds behave politically unpredictably or that on the whole they are more inclined to radicalism than 21-year-olds. A much more important point is that by giving them the vote 18-year-olds in Hamburg — and presumably in other states as well and on a national level before long — have been granted significant civil rights which are still denied them in other spheres of civil and social life. The question arises: how long will this be true?

An 18-year-old who can take part in political decision-making by voting is hardly likely to understand that according to current civil law he has still not attained the age of majority and, for example, can only buy something on hire purchase with his parents' consent

Lowering the voting age brings with it a multitude of considerations and young people not only stand to gain rights but also to lose some — for instance, with regard to parents' obligation to support their children. It is time that these inner connections between civil rights and civil obligations were thoroughly weighed up.

(RHEIN-NECKAR-ZEITUNG, 19 March 1969)

Hesse to lower voting age

Before the end of this year the Hesse state government intends to introduce a bill to lower the voting age. It was announced in Wiesbaden that the idea is to reduce the active voting age to 18 and the passive voting age to 21 in time for the state parliament elections in 1970.

In contrast with Hamburg government which has reduced the age of eligibility for election to 23, Hesse intends to lower the voting age to 21 because "the age of 23 does not come into German law in any other respect" whereas 21 is the age of majority.

(DIE WELT, 20 March 1969)

■ EDUCATION

Students and staff fail to make contact

The collapse of personal contacts between students and staff as regards many aspects of university life is probably the most serious side of the university crisis. The demand for democratisation, erroneous and wrong as it may be, contains an element of truth which the reformers would do well to bear in mind.

The students' demand for representation and participation is an appeal for acknowledgement or, if you like, for simple recognition. In the larger faculties the majority of students are ignored, unknown and nameless until it comes to examinations.

Taking the situation in reverse, the same applies to many professors. In many departments they can no longer communicate their views, they are out of touch with students and hence misunderstandings are more likely to arise. It is a short step from misunderstanding to suspicion, defamation and enmity. This is favourable ground for demonstrations by radicals.

There is only one practical way of re-establishing personal contacts between staff and students: small study groups. These could take several forms: the traditional seminar, practical classes, tutorials or lectures followes by discussion.

The important point is that the individual must be involved. He must be able to ask or answer questions without being afraid of putting his foot in it in front of a large audience. In addition, small groups enable the individual to compare his achievements and knowledge with other people's capabilities. He must concentrate and make an effort the whole time. Though more is expected of the individual under such circumstances he is not lost in a crowd and it is difficult to remain inconspicuous.

The staff requirements for teaching small classes do not exist everywhere. But in many departments the staff-student ratio is pretty good. According to statistics produced by the Arts, Science and Research Council based on 1966 figures—some of which have now been improved but they are still sufficiently telling for the present argument—the average staff-student ratio at all universities in this country is 1:8.4 In this context, staff includes professors, extraordinary professors, lecturers, academic advisers, readers and academic assistants.

This staff-student ratio varies considerable from department to department. In agricultural and forestry departments it is 1:3.5 which is unusually good. In many subjects (where the number of students is limited)—for example, mechanical engineering, mathematics and the natural sciences (1:7)—the ratio is pretty good. But the figures are not so favourable (approximately 1:25) in law, economics and social science faculties.

Frankfurter Allgemeine
ZEITUNG FÜR DEUTSCHLAND

With an average staff-student ratio of 1:15 it would seem that arts faculties could organise small classes. In some arts departments the figures are very good, but this certainly does not apply to the large English, French, German and history departments. In these instances there is one teacher to every 35 to 43 students.

But the staff situation is not so inadequate anywhere as to make it impossible to transfer to teaching methods based on mutual dialogue and involving small groups. Classes or courses with a maximum of twenty students are feasible even in the popular departments of arts faculties; the relevant teacher could prepare one course once a week but give two classes.

Of course, there must be room for flexibility. Not every teaching post is occupied and all academics are not available for teaching every semester. Nor is every subject suited to this method to the same degree. But if there was a serious desire to introduce smaller teaching groups, this would be possible in virtually every case.

Experience at British and Swedish universities and more recently at Constance University shows that in almost all subjects finals can be taken after eight semesters if students are taught in small groups. If reading matter is recommended and the individual student has to prepare for a class, then a number of opportunities for independent study can be communicated at the same time as the material itself. No lecture can compete with this.

Three or four double-period tutorials or practical classes plus the necessary practical classes plus the necessary pre-hour week. There would be no need to abolish lectures altogether. On occasions lectures can be a useful or rational complement. But the economics of lectures should not be judged according to attendance figures but according to how many students have absorbed the material and been able to recognise and rectify gaps in their knowledge immediately.

The success of such a scheme would depend to a large extent on one fact: none of the teaching staff should feel above taking small classes. Professors should not just be available for post-graduate students; they should take a particular interest in first-year students. For the sake of students all staff should be considerably and equally involved in teaching and examining.

This should not be demanded so that in future all teachers have the same right to uncooperative authoritarianism, but on the contrary so as conditions are created which would facilitate collegiate cooperation. This is the only way in which the teaching activities of a department can be determined in advance and in cooperation with related departments.

If the re-establishment of personal contact between staff and students is so important, then it is not a question of first and foremost democratising the university administrative bodies but of democratising the teaching staff of individal institutes. Students, small classes and the re-introduction of small seminars as in the past require collegiate cooperation on the part of teachers.

(Frankfurter Allgemeine Zeitung für Deutschland, 6 March 1969)

VW Foundation sets up university information centre

Handelsblatt

By establishing a legally registered organisation the Volkswagen Foundation has taken the first concrete step towards setting up a University Information System (HIS). The idea is to make the necessary data for rational planning of future university expansion and structural development readily available and in a suitable form to facilitate local and supra-regional decisions.

The University Information system is a limited liability company (GmbH); the Government, Federal states, university authorities and official statistics bodies will be represented on its executive and board of trustees. Dr Waldemar Krönig has been appointed as the company's first managing director.

HIS is intended to provide a service which thanks to the investment of a relatively large amount—at the outset the Foundation estimates that costs will amount to between five and six million Marks—will enable experts and all those politically involved in planning and decision-making to have access to the best methods and specialised information relating to university planning in the Federal Republic and West Berlin, thus eliminating avoidable uncertainties and wrong decisions.

Non-political trust

HIS itself is to be a non-political trust organisation which will not pursue any aims of its own. The task of HIS is not simply to collect information at random but to determine what planning problems need to be recognised and could be solved with the help of suitable information and methods.

HIS will not draw up its own plans for university education. As an organisation HIS is only intended to exist for a limited period; as soon as possible, it is hoped that its functions and financial responsibilities will be absorbed by the relevant administrative bodies. But until then the study groups throughout the country will be coordinated by a central bureau which will store and evaluate information at a data processing centre.

The organisation plans to cooperate with official statistics organisations and the Central Archive for University Building. Information on university planning, insofar as it is comprehensive and up to date, stored by statistics offices is to be evaluated by HIS.

On the other hand, HIS will try to assist official statistics bureaux in every respect to gather information which can only be gleaned through special local surveys, interviews and analyses. A close link will be created within the framework of the organisation as the Statistical Office will have a seat on the HIS executive and will be offered the opportunity to participate in a central study group.

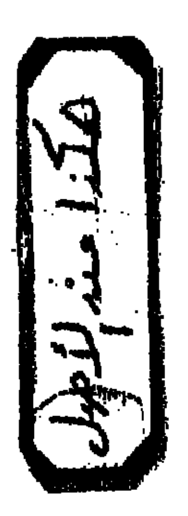
Comprehensive fund of data

Through mutual exchange of information between the Central Archives for University Building, which concentrates on specific theoretical problems, and the HIS study groups, which will be closely involved with practical tasks, it is hoped to establish a comprehensive fund of data which should benefit all building planners as well as university planners. The Central Archives will cooperate completely with HIS both as a provider and recipient of information.

One of HIS's important tasks will be to clarify what academic knowledge can be made useful to the organisation. Through close cooperation with all bodies which promote research, continuous projects at home and abroad are to be observed and checks made to see if they have come up with applicable information. Some projects have been initiated by the Volkswagen Foundation, others are in preparation and HIS will also organise some projects.

(Handelsblatt, 12 March 1969)





■ ASTROPHYSICS

Purple clouds rocketed into the sky for electric field research

Christ und Welt
Deutsche Wochenzeitung

At the end of this year Professor Reimar Lüst of the Max Planck Institute for Physics and Astrophysics at Garching, near Munich, will—with the help of a large rocket provided by the American space authority NASA— make a barium cloud evaporate at a distance of 3,000 kilometres from earth.

It can be safely predicted that when this happens many people in all parts of the world will be convinced that they have seen flying saucers in the sky. The pioneer of this experimental technique, which has been imitated by many research teams abroad, recently reported on his work to experts at the Fritz Haber Institute, West Berlin.

Before he began researching into the ionised tails of comets, Reimar Lüst, born in Barmen in 1923, was professor of mathematics at an American university. At the same time he taught physics at another American university. His investigation of electric fields in the ionosphere proved a fruitful topic for research.

The ionosphere begins seventy kilometres above the earth and ends at a height of about one thousand kilometres. What is called the plasma state is encountered one hundred kilometres above the earth's surface.

Plasma, which is described as the fourth state of matter, is a gas consisting of positively charged particles, the size of atoms or molecules, and these are called ions. Before they took on the properties of ions, these particles ejected one negatively charged electron per atom or molecule. Physicists call this process ionisation.

But plasma also consists of these free, negatively charged electrons (corresponding to the number of ions present). More than ninety per cent of cosmic matter is plasma because of the temperatures and pressure in space. There is no natural plasma state on earth or on the planets because other atmospheric conditions prevail.

The movements of electrically charged plasma particles are influenced by magnetic and electric fields. Particles with a contrasting charge are propelled in the opposite direction by an electric field. Magnetic fields also effect the movement of charged particles.

Particles moving perpendicular to a magnetic field are subject to a refractory force. Hence particles move round the outlines of a magnetic field in the form of a spiral. Positively charged particles spiral to the right and negatively charged particles spiral to the left, looked at in the direction of the magnetic line.

Collision of plasma particles is very rare. Plasma contains from one to ten particles per cubic centimetre. Against this, one cubic centimetre of air on earth contains far more particles (three times ten to the root of 19). These particles of air would have to be fitted into a cube with sides thirty kilometres long if the plasma density in interplanetary space were to be achieved; and in space collisions of ions and electrons might occur once in ten hours.

The particles cling to the magnetic lines. A drift of the whole plasma mass creates the electric field which appears as a movement of the magnetic lines themselves. If plasma was visible, then the movement of magnetic fields could be observed easily. But this is not possible because the density of plasma is insufficient.

There are regions in the cosmos with high plasma density which are illuminated more than usual by neighbouring stars and can be seen from earth. In our solar system these regions are the sun's corona and the tails of comets.

For a long time the mutual reaction of comets and other invisible plasma was unknown. This is what is called the "solar wind." This solar wind, emitted by the sun at a high speed, was only discovered and directly investigated during the present decade with the aid of space probes and satellites.

What matter can be released in interstellar space so that it is visible there? Researchers at the Garching Max Planck Institute had to study this technique intensively, as it has not previously been employed anywhere in the world.

It is known that carbon monoxide is an important component of the plasma tail of a comet. But to produce a visible plasma cloud, several tons of carbon monoxide would have been necessary. This could only have been accomplished with one of the largest contemporary rockets.

After thorough investigations it was found that a mixture of barium and cupric oxide was suitable. The following reaction takes place: part of the barium is burned up, the cupric oxide providing the necessary oxygen. The heat thus released is used to evaporate the remaining barium. This method could only be checked by a rocket experiment, and this experiment was succesfull

Lüst and his colleagues launched the first research rocket to produce an artificial plasma cloud at a Foreign Legion base in the Sahara. Later the research team sent up carrier rockets to produce ion clouds in France, Sardinia, India, Brazil, the USA and from Fort Churchill (Canada) and Kiruna (Sweden).

Two evaporation experiments at a height of 2,000 kilometres were carried out in April 1966 with the relatively powerful French Rubis rocket. The two barium clouds produced contained fifty grams of barium ions each. They marked the magnetic lines of the earth's magnetism over a distance of approximately 2,000 kilometres. The lines could be sighted from observation points in Africa, France, on Lake Constance and from observatories in the central part of this country.

In the ionosphere the barium cloud is at first electrically neutral and appears as numerous green, yellow and red spectral lines. The green line can be seen longest. The ionised barium later becomes a purple cloud which looks a bit like a cigar because of the spiralling movement round the magnetic lines.

When the luminous plasma clouds glowed and swirled in the sky many people in different countries thought they were seeing things. The research rockets were launched to a height of 150 to 250 kilometres where the plasma clouds looked like Chinese lanterns, mysteriously glowing in the sky—purple, blue and lemon yellow since the barium is not absolutely pure and often contains a small percentage of strontium as an impurity. The blue strontium cloud remains visible for a long time because strontium is not ionised by solar rays and stays neutral.

The experiments conducted by Lüst's group at Fort Churchill in Canada (on Hudson Bay, not far from the magnetic North Pole) and at Kiruna in the north of Sweden produced extraordinary results. The electric fields in the Kiruna area are extremely strong and consequently the plasma moves almost at the velocity of sound. The fields can change direction and strength within a few minutes.

As a result the artificial plasma clouds could move from vertical to horizontal within quarter of an hour and could become static again just as quickly. This proves that violent movement occurs not only in the stratosphere but also well inside the magnetosphere.

(CHRIST UND WELT, 7 March 1969)

Weizsäcker is to head new Max Planck institute

Hamburg's well-known Professor Carl Friedrich Freiherr von Weizsäcker is a candidate to head the institute for futurological research that has been set up in this country by the Max Planck Society.

Speaking for the Max Planck Society in Munich Dr Edmund Marsch said: "Professor Weizsäcker is the only person whose name has been put forward to head the new Institute."

As soon as finances have been provided construction on the buildings that are to house the Institute will begin. It is expected that work will commence in autumn this year, although a site for the Institute has not yet been decided upon.

The Institute will bear the name Max Planck Institute for Interdisciplinary Research on Living Conditions in a techno-scientific World.

More details will be released to the press at the Max Planck Society conference that is to take place from 7 to 9 June in Göttingen.

(Hamburger Abendblatt, 24 March 1969)

Flight simulator operational

Recently the first flight research simulator in the Federal Republic at the Institute for Flight Research, belonging to the Federal Republic Aeronautical and Space Research Authority, in Brunswick went into operation.

Scientists under the direction of Professor Karl Heinrich Doetsch want, amongst other things, to find out what technical aids are necessary for pilots using vertical take-off aircraft. In addition the simulator should help to establish how the instrumentation of modern aeroplanes can be made simpler to read and easier to use.

With the aid of computer-controlled hydraulics the movements in a cockpit can be imitated as realistically as possible. Soon an optical impression of surroundings during flight will also be reproduced in the simulator.

(Hannoversche Allgemeine Zeitung, 10 March 1969)

Biology comes to the aid of the paleontological research developments

Paleontologist H. K. Erben of Bonn predicted recently that, "the future and great possibilities of paleontological research lie not so much in the geological as in the biological sector." It is a fact that scientists engaged in investigating the origins and development of life on earth now have completely new opportunities because progress is being made in recognising biological structures which have not previously been analysed.

Paleontologists have now succeeded in establishing the chemical composition of traces of organic life which are more than 3,200 million years old. The oldest remains of living structures have been found in the Eastern Transvaal in "fig tree stones." According to carbon dating investigations they are over 3,200 million years old.

Even at the time when these stones were formed living organisms had reached a stage of development which has remained constant to the present day: for example, bacteria or blue-green algae.

Now tiny spherical particles (diameter five to fifty thousandths of a millimetre) have been discovered in fig tree stone. They have no equivalent in present organic life and may possibly be primitive organisms which were living fossils even 3,200 years ago having survived from an earlier age into the period of algae and bacteria.

This kind of structure is called "Sphere Type B," a bluish fluorescent protoplasmic globule of clear organic matter which is surrounded by a thin skin to stabilise the contour and in which all kinds of foreign bodies are contained. If these structures are to be regarded as living organisms, then were they subject to metabolism, did they reproduce and modify during the course of time?

These questions cannot be answered—or not yet—because the chemical composition of these tiny particles cannot be analysed in isolation. But so far it has proved possible to analyse the whole of the organic remains—still minute quantities—in prehistoric stones.

In this country some researchers are also dealing with this specialised science, for example the paleo-biochemist H. D. Pflug and his colleagues at Giessen University. They have examined a number of very old stones containing fossils and established the amino acid content of organic remains.

The oldest fossils subjected to this investigation were contained in fig tree stone which was found in Swaziland. The youngest fossils were contained in stone strata in the Transvaal. Analysing tiny traces of organic matter is particularly difficult because the researchers are handling such small quantities and great care has to be taken not to contaminate the ancient matter, for example through bacteria.

The older the samples which were investigated, the smaller the quantity of amino acid containedtherein. However, the Giessen scientists still found the amino acids, glycocin, alanin and valin, in the oldest stones, and in the 2,000-million-year-old stones another seven amino acids were present, though some of them in very tiny quantities.

The oldest of these amino acids have particularly high melting points (about 300 degrees centigrade); they are therefore especially stable when subject to heat and have been conserved, without decomposing, all these millions of years. It is possible that right from the start the oldest stones contained mainly simple-structured amino acids. Perhaps these simplest components of organic life were present in the "original mass" from which and in which the first life developed. In that case they must have originated during the pre-biological phase.

(Süddeutsche Zeitung, 7 March 1969)

COMMERCE

Mergers can develop into a dangerous trend of self-nationalisation

Frankfurter Allgemeine
ZEITUNG FÜR DEUTSCHLAND

Every epoch has its guiding principles. Often they are distillates of a larger system. This is true both of the communist centrally controlled economy and for Western-style free enterprise.

Occasionally, however, the system pursued does not have an intellectual foundation. The components of the system simply change in the course of time, old ones dying, new ones appearing. This process can take place quietly and unobtrusively.

Perhaps those who are involved in the system are not even aware that they are following new developments and helping to realise them. Perhaps they are aware, however, but keep quiet about it because they are following a certain policy which they dare not expound for tactical reasons.

Simple pragmatism

Many developments too spring from the original depths of a simple, unreflective pragmatism courting success with all available means, suppressing, deliberately or not, fundamental as well as long-term consequences.

Up to a few years ago people were cautious and hesitant about greater concentration of economic resources. Now the formation of combines is encouraged. It is suggested that all entreprises in one sector should be merged into a "national unitary company." The very name should cause alarm. Doesn't it seem dangerously akin to Eastern models?

Apart from the distribution of assets, such a standardised concern would in fact resemble the Vereinigungen Volkseigener Betriebe (VVB) in the Soviet Zone. That such an enterprise commands a national supply monopoly, that it is really a monopoly, is carefully ignored in communist terminology. When reference is made to it foreign trade is given as an alibi, the argument being that competition will not allow centralisation to get out of control.

The establishment of standard national companies, however, will not make the Western free market economy any the more reliable. Indeed, a piece of "monopolistic capitalism", as it is called in the East (although communist countries pursue an extreme form of monopolism) would be established here.

If this process went no further than the establishment of a standard Ruhr mining enterprise, all would be well perhaps and one could get on with the business in hand. But even in this sector it is doubtful whether there was or still is only this solution to the mining problem, a solution, incidentally, solely at the expense of the tax-payer. Should collieries which are strong enough (or consider themselves strong enough) to remain independent be forced to join the new enterprise under joint management because the whole structure would totter if the existence of outsiders were permitted?

This country's petroleum industry is also to be merged in a national combine. Significantly, 575 million Marks are being provided from the public purse for this purpose, and that is a tidy sum. Petroleum companies are hesitating, however, because they fear that such standardisation would have many disadvantages, especially that of constant government intervention which would probably be even welcome.

To mention a third example, the Federal Ministry of Economics has advised companies in the aircraft industry to form a national concern. The companies in question, however, are apparently not as convinced as the Ministry of the urgency of such an amalgamation.

Are these isolated cases? This is very much to be doubted. The process betrays far too much method. What sector will the Ministry of Economics want to save next on the pattern of monopolies? Even if it does not recommend this solution for some time, the economic prerequisites are at hand, and circumstances may have changed more radically than is generally believed.

Interdependence not only exists on markets and with respect to prices. Interdependence is also a factor in economic policy. Every step in a certain direction changes the system as a whole. For this reason the excuse that "these are only exceptions" is not acceptable.

If the government sees a solution in greater concentration of resources, up to the point of national monopolies, why should companies hold back modestly when competition is such an annoying thing anyway? Some companies have already made the move on their own and are seeking to realise the new system—Mannesmann and Thyssen, for example, are going into joint production of steel pipes.

Confirming to some extent the thesis of the interdependence of all economic processes a standard steel company is now in the news. A spokesman for IG Metall (the metalworkers' union) said that no company is now able to compete with the new mammoth Mannesmann-Thyssen combine. It is advisable therefore that the steel industry should come under joint management.

This statement, which was modified later by Otto Brenner, is only logical and, after all that has taken place, consistent. Wherever the conditions are favourable, companies are now doubtless considering how the creation of standard enterprises can blunt the edge of competition.

This is not a question of this or that sector. Following the objectives of the new system, it is a question of radically altering the conditions government competition in this country.

A system of national companies is naturally different from a pattern of industrial concerns competing with each other on a private enterprise basis. National companies would not only have the blessing of the Ministry of Economic Affairs when they are founded, they continue to live with a full state guarantee.

However badly they are organised or function, the state cannot very well abandon its own children. Even now the government is helping major concerns, and only these.

If national companies are set up on government recommendations, the State's commitments will be even greater. In other words, in cases of emergency the tax-payer, the treasury, must step in, and from then on it is only a matter of time until a struggling company is placed under government control.

Many trade unionist leaders are known to be still toying with the Marxist doctrine of the nationalisation of industry. It should not be surprising when from these quarters the formation of national monopolist companies is regarded as a favourable development in these quarters.

Such enterprises would open the way for unionist influence (but also for the government, the customer and supplier). The way to such a system is the way to semi-nationalisation.

Later, advocates of full nationalisation would have little difficulty in bringing it about. They need only buy off the owners for a handsome sum.

Then structure and organisation would correspond exactly with Eastern models. This monopolist policy should be the last, the very last, instrument of economic policy, and on no account should it be a guiding principle.

(Frankfurter Allgemeine Zeitung für Deutschland, 10 March 1969)

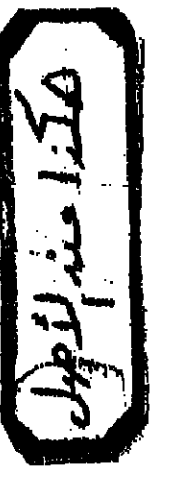
Vehicle makers propose links

In the proposed merger of the Volkswagen affiliate Auto Union with the NSU Motorenwerke NSU are to remain independent within the combine. The directors of Volkswagen and NSU have announced their plans for future cooperation between both companies.

A new company, 'Audi NSU Auto Union' is to be founded. Volkswagen will have a controlling interest.

At an extraordinary general assembly on 20 April NSU shareholders will decide if this plan can be realised.

(Frankfurter Allgemeine Zeitung für Deutschland, 7 March 1969)



Fewer self-employed persons — a trend that is to be deplored

The government's 1969 annual economic report mentions almost as an aside in the section on the labour market that in 1968 "the number of self-employed decreased at about the same rate as in the previous year." This process, leading to changes in the country's social and economic structure has received scant attention, although in previous years much significance was ascribed to it.

Especially representatives of "middle-class" enterprises saw a danger in this and called for assistance. The response to their arguments, however, has become increasingly weaker.

There are two reasons for this. For one thing, the view has gained currency that the process of advancement from self-employed to employed cannot be halted. For another, the measures suggested to secure the livelihoods of a greater number of self-employed are too bound up with traditional economic forms, and that their application would be a hindrance to progress.

The decline in the number of self-employed was then and still is exaggerated as a consequence of the concentration of resources in the economy. Large companies, constantly expanding, are making it more and more difficult for small and medium-size companies to keep going.

Small firms are therefore the victims of the growth of their larger rivals. This is what is generally thought to be the result of greater concentration in industry and the attendant decline in the number of self-employed.

Such concentration, however, is a process that has been observed for more than a century, whereas the decline in the number of self-employed, at least in this country, reached considerable proportions only in the last few decades. As long as a modern industrial economy exists, one of its dominant features will be the growth of ever-larger companies which cannot fail to pose a threat to less powerful enterprises. Nevertheless, up to the Second World War and also in the early fifties the number of self-employed, despite the spread of large concerns, the number of self-employed declined neither in absolute terms nor in relation to the total numbers of self-employed.

The truth is that in a constant process of industrial change the number of self-employed has increased in several sectors of trade and industry, in handicrafts and services, despite the continuing trend towards greater concentration of resources. by family members in relation to the The proportion of self-employed, assisted overall number of employed has remained fairly constant at about 33 per cent, ignoring occasional fluctuations resulting from economic conditions.

In 1950, 3.24 million self-employed persons and 3.16 million assisting family members were listed in the Federal Republic. This represented 32 per cent of the entire labour force of 20.37 million people. Up to 1960, the number of self-employed increased to 3.29 million, while the number of employed family members fell to 2.56 million, largely as a result of widespread exodus from agriculture.

Then began the decline in the number of self-employed. The 1967 total was for the first time under three million (2.9 million in July). The proportion of self-employed and family workers in relation to a total number of 26.4 million employees had fallen to nineteen per cent by 1967. This proportion remained fairly constant until the middle of last year. It may have decreased again towards the end of the year when the number of workers and employees went up with the increase in business activity.

A decrease in absolute and relative terms in the number of self-employed is expected this year. Fifteen years ago one third of the labour force consisted of self-employed persons and helpers. Today, this can be said of scarcely one fifth.

Responsible for this decline is not so much concentration of resources as the fact that fewer people nowadays are striving to advance from the position of worker or employee to that of independence. At present, the employee is more secure against various risks than the self-employed person who must often work very hard, bear heavy responsibilities and continually stake his fortune in the hope of greater gains.

The employee in fact often earns more than the employer. This is one reason why the desire for independence is steadily on the wane.

Also to be considered are the weaknesses of small and medium-size enterprises. These result in many companies failing to hold out on the market.

In a growing economy only such companies can as a rule survive and continue to prosper as are also expanding. Today, there is more truth than ever in the saying that stagnation is decline and brings with it the downfall of a company on a competitive market.

It is difficult to do anything about this. But if a free market economy is to function to full capacity, exploiting all its potentialities of advancement and adjustment, this task is just as important as the social security of the workers.

(DIE WELT, 12 March 1969)

TRADE FAIRS

Building industry show in Munich

Süddeutsche Zeitung
MÜNCHNER NEUESTE NACHRICHTEN

The general increase in business activity that set in last year was anxiously awaited by the building industry and its suppliers in the equipment sector. This stimulus has continued, although its impact is not as strong as it has been in other areas of the economy. The plump order books at this year's international exhibition of building machinery, *Bauma*, are not a sign of overheating but of a backlog demand dating from the recession, the extent of which took many manufacturers by surprise.

Bauma 1967 came at a time when the economy was grinding to a halt. This year, the prospects are more favourable. Most exhibitors in Munich reported good business, many even found themselves dealing with a flood of orders such as they had not experienced since the best days of the building boom.

Even in non-committal talks with prospective customers, exhibitors noticed a greater willingness to invest. This is bound to be reflected in order books in the months ahead.

Attention must be drawn to certain factors, however, after this general view of the present trend. The bulk of orders are coming in from large building concerns, whereas medium-size and small companies are still holding back. Exhibitors reported that several large companies came to *Bauma* with investment budgets of up to fifteen million Marks.

There are various reasons for this which—fortunately for *Bauma*—happened to coincide at this time. It was necessary to meet the demand that had accumulated since the recession. Considerable reinvestments were due, and higher costs are forcing companies to develop larger, more economical production units.

The reluctance of smaller companies to invest at this time is regarded as a sign that the trend towards greater concentration of resources is only now beginning to gain momentum in the building industry. Demand seems to be centred around revolving tower cranes, much to the surprise of many manufacturers. Apparently, this is a result of the high backlog of over 300,000 unfinished flats that were taken over into the new year, and also of the increasing number of building permits.

Interest in hydraulic dredgers

Keen demand was also noted for hydraulic dredgers, loading equipment on pneumatic tyres and caterpillar trucks. Financing rapidly expanding plant is causing much anxiety among manufacturers hard pressed for working capital. Today, an average seventy to 75 per cent of all transactions are concluded on a credit basis, often with terms of up to four years in the case of expensive machines.

The return of used equipment is also a difficult procedure. Dealers report that for every ten units of equipment sold seven used machines are traded in.

The main worry voiced by manufacturers at *Bauma* in conversation with their customers is what measures the Federal government is planning to stabilise prices. In the past, the building sector has repeatedly proved an effective lever for dampening the economy, especially in the period of post-war development when it was a hotbed of overheating and largely responsible for the steady increase in prices.

Today, circumstances are somewhat different. Clearly, the building sector is not under prevailing conditions the outrider of inflationary tendencies. Utilisation of facilities is satisfactory—at the end of last year the order position showed a ten per cent improvement on 1967—but there is no sign of overheating after the heavy losses incurred during the slump in 1967.

If the Federal government now decides to curb activity by deferring or cancelling certain public building projects, contractors fear that they may be in for another setback. In the equipment sector the memory of the difficult period in 1967 strengthen fears of a collapse of the steady trend now apparent in the industry.

No other sector was so severly handicapped by the drop in orders. Production fell by forty to sixty per cent. True, output last year was again thirteen per cent higher, but this is still well below pre-recession levels.

A clear indication of the difficult times this industry has passed through are the many partnership deals that have been reported since then. Planners estimate that it will take two further years as good as 1968 to restore the building sector to the expansionary phase prior to 1967.

It was everywhere apparent at this year's *Bauma* that if prices for building machinery increase on a broad scale this is not necessarily a sign that demand is bounding upwards. This at any rate was the view of most exhibitors. The majority felt that the time has come to be able to pass on long-established higher costs, including those that had been passed on to them in recent months by sub-contractors.

During the recession, prices had sunk so low that only fixed costs were covered. Higher costs were accompanied by widespread manipulation of discount rates. This play with percentages ("They all want at least five per cent as a starter," said one company spokesman) is reflected in the price manoeuvres of manufacturers and dealers. Prices are increased on the quiet by eight per cent, so that even a discount rate of five per cent still leaves an increment of three per cent.

Many customers complain that this clouds the surveyability of the market. The actual price of a machine is only determined after long negotiations.

Terms of delivery are at times as confused as prices. Doubtless the boost to demand led to a marked increase in waiting periods. The improved labour position was a secondary factor.

An essential factor, however, was the inability of sub-contractors to keep pace with the flow of orders. This was especially true of engines for which manufacturers of building equipment were often obliged to wait for months. Apart from stock machinery supplied at relatively short notice, delivery terms from the time the order was placed to the delivery of the engines varied from three to seven months.

Bauma exhibitors are quite satisfied with their new pavilions on the Theresienhöhe. Complaints were heard only from a few firms which for want of space were accommodated outside the exhibition grounds. For these some solution must be found in the coming two years. Either room must be found for them in the exhibition park or on the Theresienwiese. It would not matter if the grounds were extended a little.

This year, for the first time, serious arguments were put forward for holding future *Baumas* in autumn instead of in spring. Much can be said in favour of an autumn event. Whereas in the light of the terms of delivery mentioned above a machine ordered at the Bauma could be delivered to the contractor only towards the end of the building season, the same machine could be delivered in spring at the beginning of the building season if ordered in the autumn.

An autumn event would also simplify matters for the exhibitors. A spring *Bauma* faces stiff competition from other exhibitions in Hanover and Leipzig.

(Süddeutsche Zeitung, 7 March 1969)



Earth-removing equipment being demonstrated at the Munich exhibition

(Photo: dpa)

Agricultural products gain export momentum in European markets

That the Italians and the French like German cheese and that the British prefer German wine may seem surprising. The Federal Republic is usually classed as a major importer of agricultural products. Exports are generally taken to signify industrial exports.

For this there are historical reasons. To begin with, the lack of certain farm products created a constant import market. Then again exports of industrial products to primarily agricultural countries often depended on this country's willingness to import farm products in return.

Today, since the industrialisation of even traditionally agricultural countries is far advanced, offsetting industrial exports with agricultural imports is not as decisive a factor in international trade as it once was. Nevertheless, the conception of Federal Republic agricultural products as an insignificant item in the balance of trade is still widespread.

Exports of farm produce climbed from 200 million Marks in 1950 to almost 3,000 million Marks last year. Farm products worth 2,800 million Marks were exported. Compared to overall exports' average growth rate of seven to eight per cent in recent years, agricultural exports increased annually by twenty to 25 per cent.

The dominant role of both European economic communities is apparent when it is considered that 75 per cent of agricultural products goes to EEC and Efta countries. France is the largest single customer, followed by Italy, Austria, Switzerland, North America and Denmark.

One reason for the increasing popularity is specialisation. Two-thirds of all exported farm products are processed—they are products of the food industry, that is. Topping the export list are fish products, cheese, beer, sausages and similar products.

Despite the fact that agricultural exports have for years been an indifferent item in this country's trade policy, they have developed against expectations to the advantage of exporters and to that of other groups. Many difficulties were in the way of this development, many obstacles impeded the work of exporters.

At the beginning, few exporters had a thorough knowledge of foreign markets. They were unable to offer competitive prices. Few contacts had been established with potential customers. Political and commercial tensions impeded trade, not to mention trading barriers which were then progressively removed in the Common Market and Efta.

In many cases the organisation set up in 1959 in Bad Godesberg to promote exports was able to provide development aid, as it were, to exporters of farm products, in conjunction with the Ministry of Food. These measures, coupled with an effective marketing policy and sound public relations, helped to expand this country's agricultural markets.

This study group set up to encourage agricultural exports was headed by Helmut Fahrnschon, former managing director of the association of wine exporters, employing today thirty people at home and abroad with offices in North America, Great Britain, France, Austria and the Lebanon. The two economic aims it pursues are, firstly, the removal of surplus production by developing foreign markets in order to stabilise home prices. Secondly, to promote the liberalisation of European agricultural trade.

The pioneer achievement of the agricultural export promotion organisation was to improve the reputation of German specialities, in some cases creating a favourable impression on foreign markets for the first time. The stock opinion that German cuisine is based on sauerkraut and fried potatoes has been (and still often is) the cause of much of the reluctance of foreign buyers to import food products from this country.

The means employed to encourage sales are not new, but the way they are employed is apparently effective. Of great significance in marketing policy are food exhibitions and agricultural shows, special advertising weeks, sales campaigns, receptions for buyers and so on. All told, about 200 events of this kind are held every year in about fifty countries.

(DEUTSCHES ALLGEMEINES SONNTAGSBLATT, 9 March 1969)

The second report by the Federal Republic Research Association on the Lake Constance project is full of facts but a disappointment in that nothing practical has yet been done in the way of combatting the pollution of what is the largest reservoir of drinking-water in Europe. Is this an instance of science failing to provide answers to practical questions?

Since 1960 or so fifty scientists and any number of research assistants have taken countless water samples and made hundreds of thousands of measurements yet the water of Lake Constance is not a bit less polluted before research began.

Lake Constance is still classified as a drinking-water reservoir, so its water is still good but not a patch on what it was fifty years ago and the rate of water pollution represents a serious danger.

The steadily growing influence of chemicals stimulates biological activity in the lake water to such an extent that an unnatural concentration of nutrients threatens to make the water unusable just as has been the case with many another inland lake once used as a source of fresh water.

This state of affairs decided the Federal Republic Research Association to launch the Lake Constance project, which lasted from 1960 to 1968. Scientists of various kinds were to jointly investigate the lake and its catchment area. Preliminary conclusions were published as long ago as 1953.

■ SCIENCE

Chemical pollution in Lake Constance

The comprehensive second report shows what endless trouble must be gone to in order to combat water pollution. The deeper the researchers probe the less straightforward the answers become. A final report is bound to be several years in materialising.

In the report just published details of meteorological factors that affect the water and of currents and temperatures are outlined. These factors decide, for instance, in what way impurities reach the various parts and depths of the lake.

The report then goes on to sketch the processes of sedimentation. Sediment is analysed and so provides insight into the origin of the impurities washed in from the various parts of the catchment area.

This is closely allied to the chemical structure of the water, which in its turn has a lasting effect on the quality and biological production of the lake's contents.

Taking the Alpine Rhine and Stockach Auch as cases in point, the report goes into details of the by-products poured into the lake as a result of natural causes and industrial, agricultural and urban pollution.

Phosphates and nitrogenous compounds, for example, are fertilisers that in water lead to undesirable biological activity in the lake. It is thus of practical importance to note that agricultural manure containing nitrogenous compounds appears to be partly walsed out of the soil and into the various tributaries that flow into the lake.

It is then proved that the phosphates that are washed into the lake mainly derive from domestic and industrial sewage and even road traffic. Between them the various rivers probably convey up to 2,000 tons of phosphates a year into Lake Constance.

Considerable amounts of phosphate also find their way into the lake via atmospheric pollution caused by surrounding industry and domestic heating. Seventy-seven tons of phosphate a year come from rainwater and a further twenty tons from dust.

Frankfurter Allgemeine
ZEITUNG FÜR DEUTSCHLAND

These and other agents represent food for plankton and marine vegetation in the highly-polluted areas near the banks of the lake. The biological production of the lake was accordingly given detailed attention and a large number of aerial photographs have made possible the mapping of vegetation on the edge of the lake.

Study of the conditions of life and nutrition of the various kinds of plankton proved extremely complicated but most important. Only when all conceivable factors are taken into account can large increases in the amount of plankton or long-term physical, biological and chemicals changes in the lake be explained.

Fisheries provide an example of the practical considerations that have to be taken into account. The first beneficiaries of the increase in the amount of plankton and marine vegetation were, of course, the fish. The number of fish caught increased accordingly, but only initially.

Research showed that with the better nutrition fish grew faster, so fast indeed that with the nets commonly in use they tended to be caught before spawning. The number of young was so decimated that in 1964, for instance, blue char fishing had to be prohibited altogether.

The number of fish caught is now on the increase again, since the increased gauge of nets leaves enough young in the lake.

Even so, fish reserves are still threatened, this time by other factors. Oxygen waste and hydrogen sulphides have been the death of thousands of fish, algae affect the gauge of the nets and fresh-water perch, put off by changes at the edge of the lake, have headed out into clear water and probably decimated the young char.

Other important research was done on microbiology and hygiene, water pumping stations in one direction or another succeeding one another in quick succession along the banks of Lake Constance as they do. The distribution and movements of harmful bacteria were investigated and detailed study was made of the kinds of bacteria and virus to be found in the lake.

While these impurities mainly derive from domestic and industrial effluent cancerogenous agents were found partly to derive from natural sources, from which it must be concluded that a certain amount of cancerogenous matter in drinking-water must be regarded as normal.

On the whole it must be concluded that unless the amount of waste, including the water that drains off the streets, that is poured into Lake Constance is cut down serious harm may be caused. Any such moves must include the entire catchment area of the lake.

It is also interesting to note that the purity of the lake is threatened not only by increasing density of population, industry and handicrafts but by the growth in the number of holidaymakers too.

(Frankfurter Allgemeine Zeitung für Deutschland, 12 March 1969)

Flooding control by computer

Computers will soon be used in flood prevention. Computerisation of flood prevention and control is one of sixty projects launched by the Federal Republic Research Association to mark the International Hydrological Decade.

Work is based on the Hyreun process developed by the hydrological research unit of Munich technical college. Data relating to a river and its catchment area are stored in a computer.

The computer must, for instance, be fed with details of the river's maximum capacity, its average flow and so on. Rainfall and flow data are then all that is needed to deduce whether there will be a flood, what forms it will take and whether it might assume disaster proportions.

(Frankfurter Neue Presse, 14 March 1969)

Himalayan mountain range research

When he founded the Nepal Research Institute in Munich in 1960 Professor Walter Hellmich wanted no more than to chart a few blank spots on maps of the Himalayas. What was originally a one-room department has since become an international centre for comparative mountain research.

Professor Hellmich's collaborators, who originally intended to devote their energies entirely to the Himalayas, have surveyed mountain ranges in Peru, Colombia, Mexico and East Africa too. At present they are to be found in Kenya, North Borneo and New Guinea.

The starting-point from which the institute developed was a map of Mount Everest published in 1957 by the Federal Republic Research Association and the Austrian Alpine Association. This map gained such a degree of international acclaim that the men responsible proposed to continue the good work.

Over a period of eight years or so Nepal Institute research teams surveyed every square mile of the roof of the world. It soon proved that aerial photographs were of little use as the Himalayan ravines, some of which have sheer drops of 12,000 feet or so cannot be charted accurately from mere snapshots.



The intrepid surveyors scaled passes and peaks galore and after eight years of work preliminary conclusions can be drawn. One of the results is a detailed and accurate map of the Himalayas on which for the first time all geographical features are uniformly noted.

Other conclusions should prove useful for economic planning in Nepal. The steady retreat of the glaciers and arbitrary deforestation theaten to play havoc with Nepal's water reserves.

Ethnological studies were also undertaken but work in this field has not yet been evaluated. In one respect at least the Himalayan research scientists from this country had as little success as their predecessors. They too failed to meet up with the Abominable Snowman.

(Lübecker Nachrichten, 9 March 1969)

■ TECHNOLOGY

The economics of producing nuclear fuel

DIE WELT
UNABHÄNGIGE TAGESZEITUNG FÜR DEUTSCHLAND

Britain, Holland and this country's decision to join forces in producing nuclear fuel once more raises the issue of which method of separating and enriching the elusive uranium isotope 235 is the best. Will the proposed centrifuge plant prove the most economic or is the nozzle separation system developed in Karlsruhe the better bet?

An accurate forecast cannot really be made at the present stage because work on centrifuges is still largely classified whereas work on nozzle separation proceeds without the cover of secrecy.

Unlike the gas diffusion process used so far by America, Britain, France and probably the Soviet Union and China, an extremely costly procedure in terms of both initial outlay and running costs, the centrifuge and nozzle separation processes are based on gaseous uranium hexafluoride being accelerated to high speeds and the heavier atoms separated from the 0,7 per cent of uranium 235 by means of diverting the atoms from their trajectory.

In the centrifuge's case the difference in mass is utilised in such a way that the lighter isotopes gather in the centre of the rotating hollow cylinder while the heavier uranium 238 atoms are propelled to the periphery.

In the final analysis the performance of a centrifuge depends solely on the durability of the cylinder wall, which, when it is considered that speeds some years ago used to be 350 metres a second and more, is exposed to powerful centrifugal force.

Plies of special alloys were then used to develop even tougher centrifuges with the result that speeds of up to 500 m/sec. may now be possible.

Even so, enriching the proportion of uranium 235 from the natural 0.7 per cent to the three to five per cent needed can still not be done in a single operation. At least 1,500 to 1,800 stages must be passed through in succession to reach the required concentration. About five million centrifuges would be needed to equal the performance of the US plant at Oak Ridge.

Unfortunately, the same is true of the Karlsruhe nozzle separation process. A large number of units need to be linked to produce the required effect. Yet a nozzle unit does the work of three to five centrifuges.

The nozzle process does not involve such a great strain on metal or bearings as a centrifuge. Uranium hexafluoride gas moving at supersonic speed is forced to take a bend in a narrow nozzle. In the process the heavier uranium 238 atoms are propelled to the outer edge of the bend.

For the time being, admittedly, the cost in terms of electric power needed is a little too high to make nozzle separation an economic proposition, particularly as American plant is not working at full capacity. In view of the secrecy observed it is difficult to say how economic centrifuges are.

Nozzles, it is felt at Karlsuhe, are technically speaking far simpler and more reliable. It remains to be seen whether after the latest international agreement the nozzle system will succeed in making the grade.

(DIE WELT, 14 March 1969)



Simulated gravity at Göttingen

Göttingen physicist Burkhard Helm (left, with assistant Wolf Schott), although deaf, nearly blind and with both arms amputated, has succeeded in developing an electronic gravity detector. For the first time in the history of technology gravity can be simulated. Helm and his team are at the threshold of a new era.

(Photo: dpa)

Electricity from the wind

After many years of trials with the world's largest and simplest wind-driven power station at Geislingen, Swabia, conclusions as to the feasibility of generating electric power in this way have recently been disclosed.

The research group in charge of the project was set up by seven public utility companies, mainly Swabia Electric Power, five electrical engineering firms and the Economic Affairs Ministries of Bonn, Baden-Württemberg and Lower Saxony.

The prototype, started in 1955, has for some years been operated by the Federal Republic Aerospace Research Association.

Trials with the 78-foot wind power unit (its blades are 112 feet in diameter) have conclusively proved that in certain circumstances wind power can be an economic proposition. Annual mean wind speed must be four metres a second.

The pilot plant was designed to reach full power of 100 kilowatts at eight metres a second, equivalent to force four to five winds.

In regions with low population density, a small number of electricity users and modest power requirements wind power could be an economic proposition. In highly-industrialised countries it is not.

(Handelsblatt, 12 March 1969)

Aero-engineering development

Optimum thicknesses for the walls of cylindrical containers rocket mantles, aircraft wings and engine casings can be calculated with the aid of a device recently unveiled at the Brunswick aero-engineering section of the Federal Republic Aerospace Research Association.

Professor Wilhelm Thielemann, head of the section, noted that thin casings of aluminium, magnesium and titanium were becoming increasingly important in aircraft and missile construction because they made possible and increase in payload. As thin casings can deform under strain he and his colleagues were engaged in research into the minimum essential thickness.

(Hannoversche Allgemeine Zeitung, 14 March 1969)

Stoltenberg and Wedgwood Benn discuss computers

Computer development in Europe is likely to have been a major topic at the Bonn talks between Anthony Wedgwood Benn, Britain's Minister of Technology, and Gerhard Stoltenberg, Federal Minister of Scientific Research.

This year important decisions in computer technology are due to be made. On the one hand IBM are certain in the early seventies to launch a new generation of computers to replace the 360 range. On the other, a number of European manufacturers are on the brink of taking the plunge and following suit.

ICL of Britain, AEG-Telefunken of this country and Philips of Holland all produce reputable hardware but they must either press on or perish in the face of IBM's three-quarter share of the world market. All concerned realise that no single European or American firm can go it alone.

In Britain ICL, a major manufacturer, is prepared to accept European cooperation and well aware that no one firm could dominate a European consortium. In this country the same is true of AEG-Telefunken, as far as can be judged, while Siemens are in a more complicated position because of their existing work with RCA. Philips, who brought out a new prototype two months ago, have no links with American firms.

If, as appears likely to be the case, France for the time being elects to go it alone, European cooperation could still go ahead and an American partner, CDC for instance, could be taken on. CDC, with its team of specialists and experience in the building of large computers, realises that with IBM so all-powerful it too will, in the long run, have to join forces with others.

It goes without saying that cooperation will have to extend to joint development, rational production-sharing and joint marketing.

It seems certain that a decision will soon be made. If one is not reached, the situation will change and it may be a long time before such a convenient juncture recurs, if it ever does.

European cooperation is thus more important at the moment than cooperation in this country, in which the Federal government is not so interested.

(Frankfurter Allgemeine Zeitung für Deutschland, 10 March 1969)

Atomic energy power stations will be the order of the day in future

Until 1980 or so conventional primary fuels will be more or less protected from nuclear competition but from then on atomic energy will go from strength to strength. Lignite-, coal-, oil- and natural gas-fired power stations will probably not be built at all any more, or at best to meet peak demand.

This, at any rate, was the conclusion to be drawn from the papers read at a recent congress held at the department of fuel and power of Cologne University.

Dr Gartner of Rheinische Braunkohlenwerke, Cologne, forecast that the capacity of lignite-fired power stations would be increased until the end of the seventies but that afterwards existing lignite-fired power stations, though indispensable, would suffice.

Dr Gärtner hopes that by then new uses will have been found for brown coal. He pointed out that with the aid of brown coal sponge iron could be produced in a rotary furnace and then converted into steel in an electric-powered smelting furnace.

A particularly interesting prospect, Dr Gartner feels, is the use of surplus heat from power reactors to gasify lignite and use the gas for industrial purposes.

Dr Reintges of the Coal-mining Employers' Association noted that the aim of existing fuel and power legislation, to gurantee coal a fifty-per-cent share of power station capacity, could not be maintained for long. Even so, imported natural gas can only be used for industrial power production after consultation with the authorities, which the importers have declared themselves ready to do.

Dr Reintges also recalled that a working arrangement exists for limiting the use of oil in new power stations.

Albert Hallmann of BP reckoned that the oil industry would not need to revise its market strategy before 1980 but thereafter the competition of nuclear power would make its presence increasingly felt both in industrial and domestic power.

The oil industry evidently foresees stagnation or even a drop in sales in both sectors. Herr Hallmann stated that light heating oil could well suffer from the competition of electric storage heating from the mid-seventies on.

Estimates for the year 2000 foresee one household in three being electrically heated. From 1980 on, Albert Hallmann commented, the oil industry would be concentrating more on producing raw materials for chemicals.

(Kölner Stadt-Anzeiger, 15 March 1969)

MODERN LIVING

Red Cross efforts to trace persons missing since the war

This country's Red Cross's missing persons department has recently cleared up its 500,000th case. This country's Red Cross had more than 1,700,000 cases on file to investigate of people who are mising since the last war. At a press conference in Munich a spokesman for the Red Cross said that it was hoped to settle the outstanding 1,200,000 cases still on file by 1972.

Centa Leitl was present at the Red Cross press conference. She had asked for Red Cross assistance to trace her missing husband way back in March 1950. Her application was the 500,000th to be cleared up. The Red Cross had been informed by the Soviet Russian Red Cross that he died in a Russian prisoner of war camp in March 1945. Of the 1,200,000 cases of persons missing 92.6 per cent of the cases are presumed to be missing in eastern Europe.

National Red Cross organisations have helped in tracing missing persons and the Soviet Union Red Cross has aided in tracing 37.2 per cent. A further 33 per cent of all cases have been solved by the organisation in this country that endeavours to trace Wehrmacht personnel still missing from the last war.

Four new applications dealing with missing persons from the Wehrmacht were handed in every day last year—a total of 966. At the Munich press conference the secretary-general of the Red Cross department dealing with these cases of missing people said that his department would continue to try and trace people missing so long as it was possible to do so and so long as the families wanted to renew contact. He added, "A number of families did not want this but the overwhelming number of cases did."

Dr Wagner was full of praise for the cooperation with Red Cross organisations in East Bloc countries. They had, he pointed out, opportunities to inspect archives that were not available to others.

Out of the 100 applications made to the Soviet Union Red Cross replies to about 28 cases were received. This was probably so because there were shortages in personnel dealing with the question of missing Germans. The Red Cross in this country hopes that staff increases will sooner or later be authorised so that cases can be settled quicker.

The secretary-general of the Red Cross in this country stressed that there was no longer any question of German soldiers from the last war being detained in East Bloc countries. He also emphasised that there was little hope that men from territories of the German Reich who had served in the German armed forces in the last war and listed missing being still alive.

It was another question with men born in Germany itself. It is believed that there are still such men alive in Poland and the Soviet Union. Occasionally men are discovered who have been listed as missing but who are actually now living in the German Democratic Republic. In cases of this kind the Red Cross in the GDR gives most useful help.

Red Cross authorities in this country are of the opinion that it will be impossible to trace definitively the vast majority of the 1,200,000 cases that are still on file unsolved. More than a third, it has been estimated, could never be settled.

The *Inquiry Service* of the Red Cross has been following a new method for some time. For something like 100,000 cases estimates have been taken. It is proposed to do the same for a further 650,000 cases. These estimates have stated the degree of possibility of tracing a missing person, whether it is likely or unlikely.

For the remaining applications relatives will be given as much information as possible. The relatives will then be able to judge for themselves just how likely the Red Cross service will be in tracing missing relations. The family can then instruct the Red Cross in the light of this information. They may well suggest that the case be dropped.

State Secretary Lemmer has said that the Bundestag committee responsible for finances has allocated 6 million Marks annually, until 1972, to pay the costs of the Red Cross Inquiry Service. It may so be that by 1972 this project will be reduced. The State, however, is duty bound to do all in its powers to trace the whereabouts of those listed as missing after that last war.

After 1972, Dr Wagner said in Munich, only a central office will be operating. The Red Cross has indicated that the Service might need more personnel than the present 168.

The family guidance bureau in Hamburg, for which the Red Cross is responsible, will continue to operate until 1972. The Young People's Service of the Red Cross which is asked by the young, particularly from behind the Iron Curtain, who they are and what are their names will continue. These young people are mainly of German origin and at a certain age they are curious to know more about themselves.

The Inquiry Service still receives letters from young people asking if their mothers have done all that is possible to trace their missing fathers. In most cases these young people can be assured that the mother has done all that is possible.

(Süddeutsche Zeitung, 12 March 1969)

Life-savers rescue 707 persons

Sevenhundred and seven persons were saved from drowning last year by the life-saving association in this country. Speaking in Flensburg a spokesman for the association said that in 112 cases the life-savers had to hazard their own lives in order to save persons in the water.

The association's spokesman said that last year 28,320 persons were given first aid by life-savers and 3,571 unfortunate water sportsmen were recovered from rivers, lakes or from along the sea coast.

(Frankfurter Allgemeine Zeitung für Deutschland, 12 March 1969)

300,000 families are subtenants

Something like 300,000 families in this country, according to estimates made by experts from the Ministry of Family and Youth Affairs are obliged to live as subtenants. This estimate has been made from the housing cencus made in 1965. Then is was estimated that as many as 550,000 families were living in accommodation as subtenants.

The Bonn institute that deals with building for domestic purposes reported recently that this figure has dropped since then by 200,000 or probably 250,000 famllies.

According to Ministry experts as many as 100,000 or 150,000 families do not take the trouble to apply for accommodation of their own.

(Frankfurter Neue Presse, 13 March 1969)

Town and country planning for the future

Area planning and economic aid have to be adjusted so that in the future increased population densities can be provided for. The area planning report compiled by the Interior Ministry has considered developments not only for the next decade or so, until 1980, but further into the future as far as the year 2000.

Among many points the area planning report emphasises is the fact that population density per square kilometre has increased from 163 persons in 1937 to 241 in 1967. In the last six years alone there has been an increase of 15 inhabitants per square kilometre. It is expected that by the year 2000 the population density will have reached 281 persons per square kilometre. Experts have estimated that by the year 2000 the total population of the Federal Republic will be 70 million people, that is an increase over the 1965 figure of 19 per cent.

The report points also to a matter of considerable seriousness—the age structure of the population. It is expected that the working population (people between the ages of 15 and 65) will be reduced from 66 per cent in 1965 to 62 per cent in 1975-1980. By 1975 it is calculated that out of every thousand people in the country 660 persons will be below the age of 15 or over the age of 65. This will be the low point of the labour force. By the year 2000 the labour force will be 15 per cent greater than it was in 1965.

There is considerable variation in population increases throughout the Federal Republic. Areas with considerable population density include Cologne with 64 persons per square kilometre in 1961-1967, Düsseldorf with 43, Darmstadt with 33, and north Baden with 30.

In country areas and areas along the demarcation zone between the Federal Republic and the German Democratic Republic, as well as around Trier, Upper Franconia and Lower Bavaria are well below the Federal Republic average of four persons per square kilometre. In areas around Hildesheim and Brunswick the population density is only about three persons per square kilometre.

The highest population densities are to be found not in the middle of the country but rather at the frontier zones. Population density in the central areas, with the exception of Munich and Bremen, is much reduced, especially so in the huge agglomerations such as Hamburg, Rhine-Ruhr, Rhine-Main, Rhine-Neckar and Stuttgart.

This confirms what has been known for a long time—that there is a tendency for the population to even itself out.

The basic reason for the variations in population density throught the country is not related to varying birth rates from one area to another. For instance the number of births per thousand persons of population is ower in the heavily populated areas than it is in the country districts and even lower than the country's average. The basic reason is migration from country areas to areas of high population density and frontier zones. For example the report named the Hamburg, Hanover, Bonn-Cologne, Mainz-Wiesbaden, Frankfurt-Darmstadt, Mannheim-Ludwigshafen, Stuttgart, Nuremberg and Munich areas.

Altogether migration from the country to the towns and cities effects more than half the land space of this country. Hand in hand with this development goes the question of the distribution of the labour force. It is estimated that the number of people working on the land will decline from 13.5 per cent in 1961 to only seven per cent in 1980. The number of people engaged in production of one sort or another will remain more or less at 48.7 per cent. The number of people in service industries will increase from 37.7 per cent to 44.4 per cent over the same period.

According to the Interior Ministry planners the cause of the noth-south migration trends in the Federal Republic's population. The south of the Federal Republic has definite advantages as regards economic structure and living accommodation over areas to the north and west.

The report named two points of pressing urgency in area planning:

- In considerations of population density it is vital that questions of town planning be given priority consideration and that errors made in the past should be corrected as quickly as possible.
- In country areas and areas that have lagged behind in general development considerable weight should be given to measures involving the development of centralisation at lower and middle levels, development of supra-regional communications, improvement of agricultural make-up, concentration of forces in industrial zones and general improvements in general infrastructure.

(DIE WELT, 11 March 1969)

SPORT

Flamboyant trainer Rudi Gutendorf

DIE WELT
UNABHÄNGIGE TAGESZEITUNG FÜR DEUTSCHLAND

"Libuda, what is your position in our team?"—in English too—are the words on the blackboard in the team training room of Federal leaguers Schalke 04. Four months ago trainer Günter Brocker used the same blackboard to illustrate his *ideas of the latest in football tactics.*

Brocker's successor, Rudi Gutendorf, is now teaching his men smatterings of English. "*I am the right wing,*" Libuda has to reply.

Gelsenkirchen coalminers and steelworkers would normally dismiss the new trainer as a lunatic. There is, after all, no reason why a player should be able to do a better job on the pitch just because he happens to know what his position is called in English.

There are other reasons too why the down-to-earth people of Gelsenkirchen might well take a dim view of Gutendorf. He drives a scandalously expensive American sports car and is married to an attractive factory-owner's daughter and ex-photographic model who matches the car to a T.

Gutendorf is surrounded by an aura of high life, but strangely enough no one holds it against him. At the bar counter, where the pulse of a mining area can always be taken, he is generally held to be a good lad. Not without reason.

Three months ago when he was taken on for the annual rescue job to keep Schalke's place in the Federal league he put paid to protracted discussions about his salary. "Pay me what you like," he said, "The job interests me, not the money."

A spell training the St Louis Stars is the main reason why he was in a position to be so generous. Gutendorf's money is making a profit in Switzerland and the United States, from a furniture firm and a toothbrush factory. And he quickly gained the reputation of being a more than run-of-the-mill trainer.

"It's a great pity that most of my fellow-trainers are not financially independent," he says. Gutendorf makes good use of the freedom a man who is not dependent on his salary has. He can afford to be unpleasant, extravagant and a nuisance.

So it is that Gutendorf combines gymnastics and ball-training with eyebrow-raising psychological exercises. But Rudi Gutendorf is more than just the man who has helped outside-right Libuda to regain his old form ("The others are always joking at his expense. He has to be protected. I have given him a few words of encouragement and told him that on the field he can do whatever he wants.") or the man who sent Hasil of Austria boxing ("He has to be tougher.") and a number of others to athletics training.

When he gets to work on all Schalke, and there is little in the town except football trainer but also a specialist in the subconscious. He includes the spectators in his calculations. He not only trains the team; he also works on the stands and the terraces.

At six in the morning he has the team out long-distance running. "It is merely a question of willpower," he says. "It gives me some idea of the players' readiness to make sacrifices and the local miners feel that the coach hand players of their football are in the same position as themselves."

He even does what would be the kiss of death for many another man whose team is fighting to avoid relegation. He has invited the fans, the whole collection of know-alls, bar-counter strategists, fault-finders and fanatics, to pass judgment on the team. Gutendorf talks with them, argues and listens.

"They are our critics. You have to take them seriously. They feel noticed, listened to, let into the secrets. Direct contact develops, the people feel responsible. And for me the feelings of the ordinary fan are a seismograph. If 600 people do not like a player there must be something in it."

Two hundred fans came to the first meeting of this kind. The second time 600 crowded in, beer glass in hand. Gutendorf comes to conclusions. All 600 like Hasil, the Austrian. So the trainer is going to keep him in mind.

Gutendorf has the terraces as much under control as he does the men on the pitch. "Just as one man can get an entire stadium worked up, so 600 spectators exercise a positive influence," he comments in the way of mass psychology. Even with a club in such a grave relegation position as Schalke he draws applause from satisfied spectators in this way.

They are not going to make disparaging comments about the toff with his fine car. After all, he talks with them. They are not going to carp about the team either, for the lads have to be out and about at six in the morning just like everyone else (even if it is only once a week). Why, they even learn English.

Gutendorf has all footballing Gelsenkirchen spellbound. He uses the methods of a public speaker. He knows the weaknesses of ordinary people.

The members of the board of directors have mixed feelings. Three months ago, when Gutendorf was prepared to take on Schalke for a pittance, they did the right thing by their new trainer and paid him the 5,000 Marks a month his predecessor had been earning.

Now they realise that Gutendorf is a man who only makes an offer of that kind once. "If he succeeds in saving the team from relegation and we are unable to come to terms with him next season the fans will tear the place to shreds," treasurer Aldenhoven suspects. He and his fellow-members of the board reckon they know the price Gutendorf will be asking: 10,000 Marks a *month* at the very least.

"Right wing" Libuda would then be able to progress to comic strips in English next season. The trade is enviously ironic about madman Gutendorf. "His French is not so hot," a fellow-trainer recently sarcastically commented.

(DIE WELT, 11 March 1969)



Rudi Gutendorf
(Photo: Nordbild)

Minister favours sport at all ages of life

Health Minister Käte Strobel has come out in favour of sport at all stages of life as a means of regaining vigour and briskness. Gymnastics, running, swimming, cycling, skiing and the daily dozen are all suitable means of combating complaints that ensue from too little exercise, Frau Strobel notes in a comment on the value of sporting activity.

An opinion poll conducted on behalf of the Health Ministry, Käte Strobel states, has brought to light gaps and shortcomings in the public assessment of sport as a healthgiving activity. Sport, she comments, is of interest for both the healthy and the sick.

Particularly valuable, Frau Strobel feels, are the daily dozen to keep fit, gymnastics in bed for the sick so that their state does not grow worse and ante-natal exercises for expectant mothers to speed the process of childbirth.

Not forgetting old people, for whom the Health Ministry recently published a dietetic guide, Frau Strobel reckons that sport for old people is too uncommon. A large-scale campaign is needed to let old people know what kinds of sport would do them good.

In the Minister's view the general public must be better informed about the importance of physical exercise to health and encouraged to take part in campaigns and join sports clubs of various kinds. This is one of the functions of the Health Education Centre set up last year under the aegis of the Federal Ministry of Health.

(Süddeutsche Zeitung, 11 March 1969)

World soccer championships in 1974

Four towns in North Rhine-Westphalia will host the 1974 world football championships (to be held between 15 June and 15 July), Hermann Neuberger of Saarbrücken, chairman of the organisation committee disclosed at a press conference in Düsseldorf on 18 March.

Dortmund, Duisburg, Düsseldorf, Gelsenkirchen and Cologne, all of which had applied to the Federal Republic Football League, have submitted plans of proposed extensions and improvements to their grounds and facilities.

The league is shortly to propose to FIFA, the international federation of football associations, a new mode of holding the final rounds.

Instead of the present system, with eight best teams being decided in four groups and a straightforward points play-off, the quarter-finalists are to be divided into two groups and the winners of the two groups play each other in the finals. Games will also be played to decide the third, fifth and seventh places. "There would then be 30 fixtures," Herr Neuberger commented.

(Frankfurter Allgemeine Zeitung für Deutschland, 18 March 1969)

1972 Olympics shooting events underground

If the plans of the executive committee of the International Marksmen's Union (UIT), meeting in Hamburg, materialise the shooting events at the 1972 Munich Olympics will take place underground.

The members of the committee, who come from the United States, the Soviet Union, Rumania, Egypt, Switzerland and Sweden, did not disagree on the general idea and approved the idea of uniform light, temperature and no wind.

(Kölner Stadt-Anzeiger, 11 March 1969)

Aden	SA $ 0.05
Afghanistan	Af 10.—
Algeria	DA 0 60
Angola	Esc 1.—
Argentina	$ m n 45.—
Australia	10 c.
Austria	S 3 —
Belgium	bfr 6.—
Bolivia	$ b 1.50
Brazil	N. Cr. $ 0 35
Bulgaria	Lev 0 05
Burma	K 0.60
Burundi	F. Bu. 10.—
Cambodia	R 4 40
Cameroun	F.C.F.A. 30.—
Canada	Can $ —.20
Ceylon	cR — 60
Chile	Esc. 0 60
Colombia	col. $ 1.—
Congo (Brazzaville)	F.C.F.A. 30 —
Congo (Kinshasa)	Makuta 7.—
Costa Rica	C 0 85
Cuba	P 0.13
Cyprus	11 d
Czechoslovakia	Kcs 0.50
Dahomey	F.C.F.A. 30.—
Denmark	dkr 0 90
Dom. Rep.	RD $ 0 15
Ecuador	S 2 50
El Salvador	C 0 30
Ethiopia	Eth. $ 0 30
Fiji	11 d
Finland	fmk 0.50
Formosa	NT $ 5.—
France	FF 0 60
Gabon	F.C.F.A. 30.—
Gambia	11 d
Germany	DM 1.—
Ghana	cedi 0.12
Great Britain	11 d
Greece	Dr 4.—
Guatemala	Q 0 15
Guayana	BWI $ 0.20
Guinea	F.G. 30.—
Haiti	G 0 65
Honduras (Br.)	$ BH 0 20
Honduras	L 0.25
Hong Kong	HK $ 0.70
Hungary	Ft 1.—
Iceland	Kr 5.—
India	Rs 0.80
Indonesia	Rp. 15.—
Iran	Rl 10.—
Iraq	50 fils
Ireland	11 d
Israel	I £ 0.40
Italy	Lit. 80
Ivory Coast	F.C.F.A. 30.—
Jamaica	11 d
Japan	Yen 50
Jordan	50 fils
Kenya	EAs 0 25
Kuwait	50 fils
Laos	Kip 60.—
Lebanon	P 40.—
Liberia	Lib $ 0 15
Libya	50 Mills
Luxembourg	lfr 6
Madagascar	FM 30.—
Malawi	11 d
Malaysia	M. $ 0.40
Mali	FM 60.—
Mexico	$ 1.50
Morocco	DM —.65
Mozambique	Esc 1.—
Nepal	Mohur 1.—
Netherlands	Hfl 0.50
Netherlands Antilles	G. ant 0.25
New Zealand	9 c.
Nicaragua	C 0 85
Niger	F.C.F.A. 30 —
Nigeria	11 d
Norway	nkr 0 90
Pakistan	Rs 0 60
Panama	B 0.15
Paraguay	G 15.—
Peru	S 3.50
Philippines	P. phil 0.60
Poland	Zl. 0.50
Portugal	Esc 1 —
Rhodesia	11 d
Ruanda	F. Rw 12.—
Rumania	Leu 0 50
Saudi Arabia	RL 0 60
Sweden	skr 0 60
Switzerland	FS 0 50
Senegal	F.C.F.A. 30.—
Sierra Leone	Le 0.10
Somalia	Sh So 0 50
South Africa	Rand 0 10
South Korea	Won 35 —
S. Viet Nam	V N $ 15 —
Spain	Pts 8.—
Sudan	PT 5.—
Syria	£ S 0.50
Tanzania	EAs 0 25
Thailand	B 3.—
Trinidad and Tobago	BWI $ 0 20
Togo	F.C.F.A. 30.—
Turkey	T £ 1 25
Tunisia	65 M
Uganda	EAs 0 25
UAR	PT 5.—
Uruguay	P 20.—
USA	$ 0 20
USSR	Rbl 0 10
Venezuela	B 0.60
Yugoslavia	Din 1.—
Zambia	11 d